APPENDIX B

Minnesota Pollution Control Agency

Northeastern Minnesota Environmental Infrastructure Resource Protection and Development Program – Jackfish Bay Sewer Collection System on Rainy Lake Environmental Assessment (EA)

RESPONSES TO COMMENTS ON THE EA

1. **Comment:** The commenters stated concerns that there is no proof that there is a need for the project. The ROSS study used by the county to determine the need for this project is flawed and should not be considered as proof that there is a need for this project.
Comment letters 1, 2, 3, 4, 5, 8, 11, 13, 19, 21, 22, and 28.

   Response: The ROSS study was a planning tool used by the Koochiching County (County) in 1997. Using aerial infrared photography, soil survey information, a property owners' survey, and public information, the ROSS committee identified a general condition of failing private septic systems. The potential causes of these failing systems were soil conditions, shallow depth of bedrock, the residential development density, making required setback distances unachievable and the age of the systems.

   The ROSS Study was referred to in the Environmental Assessment (EA) for historical purposes and to provide a description of the process the County followed before proposing this project. The local unit of government (in this case, Koochiching County) has the responsibility of explaining the need and justification for the Northeastern Minnesota Environmental Infrastructure Resource Protection and Development Program – Jackfish Bay Sewer Collection System on Rainy Lake (Jackfish Bay Sewer Collection System) project.

   The Environmental Assessment is an informational document designed to aid readers in understanding a project's potential environmental impacts and not used to determine the need for the proposed project.

2. **Comment:** The commenters stated concerns on how the project is going to prevent an accidental spillage into the lake if and when the line freezes at the transition point when it goes from being under the lake to being under ground at the shore.
Comment letters 1, 2, 3, 22, and 23.

   Response: If a break in the sanitary sewer collection line should occur at or near the point were the line either goes under the lake or comes up from the lake bed there are a number of things that would happen to ensure that any loss of untreated sewer would be minimal. Isolation valves will be located on each side of the water crossing, which will be manually closed after a leak is detected. Downstream flow would operate as normal. Upstream flow would be attenuated in the main pump station wetwells. The upstream pump station would be taken offline, and all grinders would be online and able to pump to the main pump stations. Operating in this scenario should allow time to complete the repair without bypassing at average wet weather flows. If repairs took longer than anticipated, hauling from the main pump station wetwell by truck would allow users to continue normal operation.

   This was discussed in Section 4, pages 8 and 9 of the EA document.

3. **Comment:** The commenters stated concerns about how a broken line would be detected if it occurred under the ice and how promptly would it be shut off before it dumps large quantities of raw sewage into the water.
Comment letters 1, 2, 3, 21, and 28.

Response: If the sewer line would break under the lake bed, the broken or ruptured pipe would be discovered through the use of a pressure monitoring device. The six main pump stations would each have monitoring devices to measure static and live pressure in the force main. A rupture in the line would result in a drop in either of these two measured pressures and cause an alarm. The alarm would be signaled at the pump station by an illuminated light and the alarm would also have remote telemetry to a contracted maintenance service notifying them of the alarm. Once notified of the alarm, the maintenance service would locate the break in the line and take appropriate measures to repair the break. The isolation valves on either side of the water crossing will be closed manually, and a new pipe directionally drilled between the isolation values. After connection of the new pipe to the isolation valves, the values would be reopened and service would resume.

This issue was discussed in the EA document in Section 4, pages 7, 8 and Section 7, page 13.

4. **Comment:** The commenters stated the following concerns about the 56,000 gallons storage tank. Will wastewater in the tank freeze? Will it be surrounded by a containment structure? How many days storage is it really designed to handle? Why is it needed if East Kooch has enough capacity to handle the design flow of this system? If the East Kooch system cannot handle the flows what are the environmental impacts of its system if it has to bypass the treatment plant and bypass waste water directly into the Rainy River?
Comment letters 1, 2, 3, and 13.

Response: Near the point of discharge into East Koochiching Sanitary District (East Kooch), a 56,000-gallon storage tank would be constructed to hold flows if there is an overload of the East Kooch lines. The storage tank is a 31-foot diameter, 10-foot-tall, aboveground steel tank. The tank capacity is 56,000 gallons. The tank would be used when a bypass event was occurring at the North Koochiching Sanitary District (North Kooch) Treatment Facility.

Wastewater is not anticipated to be in the storage tank during freezing weather conditions, and as a result will not freeze. The storage tank will not be surrounded by a containment structure. The storage tank is designed to handle 24 hours of average wet weather flows from 295 hook-ups.

On the basis of discussions with the North Kooch, the tank would be used on an average three times per year. The proposed storage tank is anticipated to be used during periods of the year when the snow is melting or during heavy rain storms. During these periods is when high ground-water conditions occur and ground-water inflows and infiltrates into existing gravity sewers. The inflow and infiltration into the existing gravity sewers can cause treatment plant by-passes at the North Kooch, and can result in sanitary sewers surcharging in the existing East Kooch collection system. The purpose of the storage tank is to provide wastewater storage during these periods when the above by-pass and sanitary sewer surcharging conditions occur. The storage tank is being provided so the Jackfish Bay Sewer Collection System will not increase the number and extent of these by-pass occurrences.

This issue was discussed in Section 4, page 6 of the EA document.

5. **Comment:** The commenters stated concern regarding who will be responsible for the operations and maintenance of the proposed sewer line. According to North Kooch Sanitary District, they have not been contacted about providing service and/or maintenance for the line.
Comment letters 1, 2, 3, 28.

   Response: The North Kooch has been negotiating with the East Kooch to develop a revised operations and maintenance agreement. If these negotiations are not successful, East Kooch may seek an agreement with a private entity. In any case, East Kooch will be required by the MPCA to have an operation and maintenance agreement in place before the Jackfish Bay Sewer Collection System is operated.

6. **Comment:** The commenters stated concern about what the county considers right-of-way as it references peoples' yards, county roads, and unimproved township roads. Much of this ROW would be in drainage ditches and floating bogs.
Comment letters 1, 2, and 3.

   Response: As used in the EA, the phrase "right-of-way" refers to the location of the sewer line alongside existing roads, whether they are publicly owned and maintained or private driveways. The sewer line is located in right of ways because the areas have typically been previously disturbed. In these areas, installation of the sewer line will have reduced impacts than installing it in nonright-of-way areas. The right of way does include drainage ditches, but the line itself will not be placed in ditches, but rather on the side of the road bed and so would avoid direct impacts to both drainage ditches and floating bogs. Directional drilling will be used in some low areas where ground water is anticipated and seven-foot minimum bury is expected to be obtained. This would reduce the amount of excavation dewatering that would be required in these areas. Directional drilling will be used at road crossings where seven-foot bury can be obtained to minimize impacts to the roadways.

7. **Comment:** The commenters stated concern that the existing system in East Kooch (that the proposed system is being modeled after) is currently frozen, and there are several residents that have to be pumped by truck from the grinder station.
Comment letters 1, 2, 3, 10, 13, 21.

   Response: About 100 feet of sewer line, affecting four East Kooch residences, froze this winter and the line was still frozen at the end of April. The suspected cause is a splice in the heat tape. Service has not been interrupted because East Kooch has had a pumper truck available to go out two times per week and pump out the effluent.

   The same thing could happen in the Jackfish Bay Sewer Collection System under similar winter weather and operational conditions. The freezing of the East Kooch line this winter was due to a failure in the heat tape and not to the shallowness of the sewer line itself. In much of the Jackfish area it will not be feasible to bury pipe seven to eight feet deep because of the depth of bedrock and its close proximity to the ground surface. In many areas it is proposed to bury the pipe three to four feet in depth and to provide heat tape and insulation for the pipe. These design features will reduce the pipe freeze potential. The pipes should rarely, if ever, freeze.

8. **Comment:** The commenters stated concern about how the new sewer line will handle the great tension that can occur when the line moved from below the frost line (7.5 feet) to an area that is in frost.
Comment letters 1, 2, 3, 24.

Response: The transition areas from seven feet of bury depth to three feet of bury depth are not anticipated to produce tension on the pressure sewer. The areas where the pressure sewer is buried at a depth of three feet are areas where there is shallow bedrock. Bedrock does not contract and expand under frost conditions like dense wet soils. As a result the bedrock will not put the pressure sewer line in tension as suggested. The bedding materials will also reduce cohesion between the soil and pressure sewer pipe. As a result, if there was tension placed on the pressure sewer, the pressure sewer would be able to move without rupture.

As stated in the EA, the gravity interceptors would be constructed of approved polyvinyl chloride (PVC) pipe or reinforced concrete pipe with gasketed joints, as appropriate for sanitary sewer construction. The line itself is unlikely to break because it would be made of a break-resistant plastic material. Connections to manholes would be made using flexible cast-in-place gasket connectors or boots to provide a positive seal. Maintenance holes would be pre-cast concrete (ASTM C-478) with gasketed joints. The force main would be constructed of approved pressure rated PVC or high-density polyethylene pipe with gasketed joints. The pump stations' wetwells would be constructed of cast-in-place concrete. Construction joints would be sealed using approved waterstop materials.

This issue was discussed in Section 16, page 18 of the EA document.

9. **Comment:** The commenters stated concern about whether expansion joints were being installed and will the heat tape be operated automatically or manually.
Comment letters 1, 2, 3.

Response: Expansion joints are not proposed at these transitions because they are not needed. See response to Comment 8 for additional information. The heat trace segments can be operated either manually or by temperature sensors that will detect when the pressure sewer surface temperature is at 32 degrees Fahrenheit (freezing temperature). At this pipe surface temperature, the heat trace would operate and increase the pipe surface temperature to prevent freezing.

10. **Comment:** The commenters stated concern that the freeze charts used in the EA should be revised because the East Kooch system froze this year and it also uses heat tape.
Comment letters 1, 2, 3.

Response: The freeze charts on page 7 of the EA are accurate as shown as they are depictions of manufacturer calculations of time to freeze at a depth of three feet of various sizes of pipe. The time to thaw chart is also based on manufacturer calculations.

The frozen sewer line in the existing East Kooch system is believed to be a result of a heat trace failure, not a result of an inadequate wattage heat trace. If the heat trace failed on the proposed system the same result could occur.

Regarding the freeze of the East Kooch line this past winter, it might be noted that prolonged cold and little snow made this winter unusual. Across northern Minnesota, approximately 50 percent of all septic systems are estimated to have frozen. In the County, it is estimated that a minimum of 200 septic systems froze. The problem of freezing was more prevalent among septic systems than centralized sewer systems. In areas of the East Kooch with operable heat tracing systems similar to the proposed design for the Jackfish Bay Sewer Collection System, there were no reports of frozen pipelines last winter.

11. **Comment:** The commenters stated concern about what type of material will be encountered when the line is directionally bored at the seven-foot minimum bury, especially at the island crossings. Is this material stable or will it be affected by ice heaves and large rocks and boulders that get pushed around by the frost.
Comment letters 1, 2, 3.

Response: The majority of soils expected to be encountered at directional boring locations are documented as Ground Moraine Geology and described as lean clays in the subsurface soil investigation conducted by American Engineering Testing, Inc., Duluth, Minnesota for the County – Environmental Services Department.

The directionally bored lines will be installed at depths of seven to eight feet. At the seven to eight foot depth, freeze conditions will rarely, if ever, occur, especially under water crossings. Ice heaves should not affect the sewer line because the sewer line is buried and the ice heaves occur at the ground surface. Since frost is unlikely at the proposed bury depths, frost would not be present to shift large rocks and/or boulders.

12. **Comment:** The commenters stated concern about how the system will work if they have their electricity and water for the winter. How will that affect the grinder pump and proposed sewer line at these locations.
Comment letters 1, 2, 3, 8, 14, 29.

Response: Currently, many households in the existing East Kooch have the electricity and water shut off for winter. Property owners notify the East Kooch to have their unit winterized and no harm occurs to the sewer system which is similar in design to the proposed Jackfish Bay Sewer Collection System. The same procedure will be followed for the Jackfish Bay Sewer Collection System after it is annexed by East Kooch.

13. **Comment:** The commenters stated that the plan area is 2.85 miles from Voyageurs National Park, not 15 as stated in the EA.
Comment letters 1, 2, 3.

Response: It is 2.8 miles on Highway 11 from a point perpendicular to the 19th Hole Restaurant to Tilson's Bay. It is 2.4 miles from Tilson's Bay to the turn-off to Voyageurs National Park. It is 1.8 miles from the turn-off to Voyageurs National Park (VNP) on Highway 11 to the VNP Visitor's Center. Thus, from the western edge of the Jackfish Bay Sewer Collection System to the VNP Visitor's Center it is 7.0 miles and from the eastern edge it is 4.2 miles.

14. **Comment :** The commenters stated concern that the 40-foot easement proposed for construction would result in the loss of many trees along the proposed route.
Comment letters 1, 2, 3, 21, 25, 28.

Response: The commenters are correct; there would be a loss of trees if the proposal is implemented. Along the length of the corridor, this would result in 14.1 acres temporarily affected and 7.1 acres permanently affected by the proposed action. The construction would necessitate a temporary 40-foot-wide corridor be established/cleared to allow for the placement of the sewer line. Once the sewer line was installed, a 20-foot-wide maintenance corridor would be maintained free of woody vegetation along the alignment to provide access for any repair actions that might be needed. In addition to these negative impacts, the establishment of the corridors could also have permanent positive impacts. The "edge" between two habitat types, wooded and grassy in this case, normally is a more productive and diverse area than monotypic habitat. The construction of the approximately three miles of corridor through the wooded area would establish such an edge effect. Except for the impacts associated with the loss of wooded and brushy habitat, the impacts associated with the project would be temporary and, in most cases, the area would return to preconstruction conditions.

This issue was discussed in Section 6, page 12 of the EA document.

15. **Comment:** The commenters stated concern that there would be 40,000 linear feet of excavation rather than the 30,000 linear feet stated in the EA.
Comment letters 2, 3.

Response: The 30,000 linear feet referenced above appears in the EA document under the discussion of how many linear feet would require rock blasting. The 30,000 linear feet is the best estimate from the County's consultant. It is likely that the actual linear feet of rock blasting will be between 30,000 and 40,000 linear feet. Probes were done at intervals, so the need for rock blasting between these intervals is speculative. The project engineer estimated that 30 to 40 percent of the entire line, which would be 100,000 linear feet, would need blasting.

16. **Comment:** The commenters stated concern that the "water cover" amounts identified in the EA are incorrect. The EA identified 860-feet of water cover, when the Tilson Bay crossing would be 1200-feet and the Morrison Point crossing would be 946-feet alone.
Comment letters 1, 2, 3.

Response: The water crossing cover amount should be corrected to 2,700 feet. The water crossing to the islands will not be directionally drilled under the road because those crossing are filled with blast rock which would make directional drilling difficult.

17. **Comment:** The commenters stated concern that the clay plugs that would be used to prevent the trench from becoming a conduit for runoff would also prevent water from the upslope side from flowing past the trench to the plants down gradient.
Comment letters 1, 2, 3.

Response: The clay plugs will extend from the trench bottom to ground surface and will be the full width of the trench and four feet thick. They will be installed on slopes greater than five percent. The intervals will vary based on the slope. With the design being proposed for this sewer collection line, the vast majority of the trench on a cross slope would not have clay plugs, and thus have negligible impact on normal ground or surface-water movement.

18. **Comment:** The commenters stated concern that the wetland identified in Section 6, of the EA under Cover Types, as being 1,475 linear feet but only three-feet wide. The construction easement is 40-feet wide, why wasn't that width used?
Comment letters 1, 2, 3.

Response: The 40-foot wide construction trench would be the standard construction method that would be used for the proposed construction. In the case of wetland habitat, efforts would be taken to minimize construction impacts. The contractor has stated that a slit trench method could be used in the wetland areas which would reduce the width of the construction trench to approximately three feet.

19. **Comment:** The commenters stated concern that the 40-foot easement would interfere with the wildlife, fowl, fish, Canada Lynx and even the snapping turtles that migrate through the area regularly.
Comment letters 1, 2, 3, 5, 25, 28.

Response: The EA states in Section 7 that the bisection of the area by the proposed 40-foot construction corridor would impact the area's fauna. The negative and positive impacts of these actions are described in that section. It is also pointed out in Section 7 that the relative impact of the proposed action is reduced by the existing bisection of the area resulting from the extensive network of roadways, driveways, and housing sites already in the project area.

The area of woodland removal is estimated to be 14.1 acres. Some pipe segments are directed through forestland for a total of almost three miles. These alignments would have some impact on wildlife habitat, but it is not expected to be significant since half of the area would be allowed to reforest and the remaining portion would be reseeded with native herbaceous material.

The project area has been significantly disturbed by the previous construction of a large number of year-round and seasonal residences along with accompanying infrastructure (roadways, power lines, etc.). This development has occurred primarily along the shoreline of Rainy Lake.

In regards to the Canada lynx, the U.S. Fish and Wildlife Service (USFWS) issued on May 5, 2003, a final biological opinion for affect of the proposed action on this protected species. After reviewing the current status of the lynx, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the USFWS' biological opinion that the proposed project is not likely to jeopardize the continued existence of the lynx. No critical habitat has been designated for the species; therefore, none will be affected.

This issue was discussed in Section 7, page 13 of the EA document.

20. **Comment:** The commenters questioned where the water will come from to flush the toilet and to run the grinder pumps for people who do not have a well on their site.
Comment letters 4, 28.

Response: The construction of the sewer collection system does not include the provision of water. There are three potential sources of water: 1) water from Rainy Lake; 2) well water from wells on individual lots; and 3) water hauled to the site by water trucks. Existing sources of water to operate existing Individual Sewage Treatment Systems (ISTS) come from one of these three sources.

21. **Comment:** The commenters stated that if a homeowner has a properly working septic system they should not be forced to hook up to this system if it is constructed.
Comment letters 4, 5, 29.

Response: According to Koochiching County, Article XI, Section 4 of the "Regulations and Operational Procedures of East Koochiching Sanitary Sewer District" requires property owners to hook up to the sewer system "… provided said public sewer is within 300 feet of the structure generating the wastewater." (page 13) Any deviation from this requirement would have to be negotiated with the East Kooch. It is unlikely East Kooch would amend its rules in this regard because it would not benefit the District to do so.

The EA is an informational document designed to identify potential environmental impacts. The issue of required hook ups to the system is outside the scope of environmental review.

22. **Comment:** The commenters stated support for the project.
Comment letters 6, 16, 18, 27.

Response: No response necessary.

23. **Comment:** The commenter stated concern that a safety review has not been conducted on the proposed design of this sanitary sewer collection system.
Comment letter 8.

Response: The Minnesota Pollution Control Agency (MPCA) is required to review and approve the plans and specifications for a sewer project. In the course of its review, MPCA judges the proposal against the Ten State Standards for sanitary sewer collection line construction, as well as, the standard design practices used for similar type projects. The MPCA and the design consultant are in the process of finalizing the design plans and specifications to ensure that the proposed project meets these design standard.

24. **Comment:** The commenter stated concern that there has not been a public meeting or hearing scheduled during the summer months when those with seasonal residences would be able to attend.
Comment letter 8.

Response: The County has held three public meetings and one, official public hearing on the Jackfish Bay Sewer Collection System project. All meetings, and the hearing, were held when there was one or more issues of substance to address. Unfortunately, summer has not been a time of substance and so none of the meetings has taken place during the summer. The only slight

exception is the most recent public meeting held on October 7, 2002, by the County. At this meeting there was nothing new of substance to address, but it was held to accommodate snowbirds as well as full time residents of Jackfish Bay.

A public informational meeting, hosted by the MPCA and the U.S. Corps of Engineers, was held on March 26, 2003, during the public comment period on the Jackfish Bay Sewer Collection System Environmental Assessment document.

25. **Comment:** The commenter stated concern that meeting minutes should be kept for all public meetings and hearings held by the County on this project.
Comment letter 8.

Response: Official minutes were prepared for the official public hearing on the Jackfish Bay Sewer Collection project held in the Ranier Community Center on January 15, 2002. These minutes were made available to the public. Minutes were not taken at the three public meetings. No meeting minutes were taken at the MPCA and U.S. Corps of Engineers public meeting.

26. **Comment:** The commenter stated that North Kooch provides operating and certain maintenance services on a contract basis to East Kooch. To date there is no contract between the County or East Kooch and North Kooch to provide any service for the proposed Jackfish Bay Sewer Collection System.
Comment letter 9.

Response: North Kooch is currently negotiating with East Kooch to renew its operations and maintenance agreement. Should these negotiations prove to be unsuccessful, East Kooch will negotiate an agreement with a private firm. Prior to connection of the Jackfish sewer collection system, East Kooch will have a contract with some entity to provide operations and maintenance. This contractor most likely will be the North Kooch. As a condition of the MPCA sanitary sewer extension permit, an operator will need to be under contract at the start of operations.

27. **Comment:** The commenter stated that on page 6 of the EA, NKASD has not been asked, nor has it agreed to store and man the emergency generators in the event of a power outage. At the current time, NKASD is staffed to only handle its own sanitary district, and its contract requirements with East Kooch. Although the NKASD currently monitors the pump performance of certain major East Kooch lift stations via telemetry, it is not responsible for locating and repairing any leaks. The reference on page 7 of the EA to "notice and repair the rupture" should be East Kooch, not NKASD as the responsible party.
Comment letter 9.

Response: Comment is duly noted. The North Kooch has been negotiating with the East Kooch to develop a revised operations and maintenance agreement. If these negotiations are not successful, East Kooch may seek an agreement with a private entity. In any case, East Kooch intends to have an operations and maintenance agreement in place before the Jackfish sewer collection system is constructed.

28. **Comment:** The commenter stated that their existing septic tank is very close to the driveway. Why couldn't the sewer line connect there so the line would not cut across so much of their yard? Comment letter 11.

    Response: Specific accommodations for individual needs have been an ongoing activity for over a year and a half. Such accommodations are still being made. The commenter needs to contact the design engineer to have him evaluate this specific request.

29. **Comment:** The commenter stated that, as listed in Section 30 of the EA, the project proposer would be required to apply for and receive a Utility License to Cross Public Waters or Utility License to Cross Public Lands.
    Comment letter 12.

    Response: The County has already completed and submitted the permit application to the Minnesota Department of Natural Resources (DNR).

30. **Comment:** The commenter stated that the EA document indicates that shut-off valves will be installed in the new sewer line at specific intervals (page 6 -7 of the EA). However, it is not clear if such shutoff valves will be installed at the immediate ends of the lake/wetland crossings, which would be good locations to have shut-off valves in the event of a line rupture.
    Comment letter 12.

    Response: Manually operated isolation valves are to be installed on the proposed sanitary sewer collection line, including on each side of the water crossings.

31. **Comment:** The commenter stated that the current minimum lot size on Rainy Lade is 20,000 square feet. However, once the area is served by a pubic sanitary sewer those same lot sizes would drop down to 15,000 square feet for riparian lots and 10,000 feet for the non-riparian lots. Considering the 100-plus acres of land that could still be platted in this area, the potential number of residences could be significantly higher than what was discussed in the EA. The potential for future development should be carefully considered during the planning, environmental review, and permitting process to be sure that the system is large enough to handle future development.
    Comment letter 12.

    Response: While the County does implement the Shoreland Ordinances, it does not intend to reduce minimum lot sizes to less than 20,000 square feet. Should any property owner desire higher density zoning, he or she will have to apply for a zone change to a zoning district that allows smaller minimum lot sizes than 20,000 square feet.

32. **Comment:** The commenters stated concerns about what effect dewatering will have on those people who have shallow wells.
Comment letters 13, 28.

Response: Most people in the Jackfish Bay area get their drinking water from Rainy Lake and would not be affected by dewatering activities. Wells in the project area are typically not shallow wells. The dense, clay soils in the project area inhibit the migration of ground water; and therefore, the dewatering activities anticipated would be dewatering the pipe trench with the use of a sump pump. Dewatering activities of this type, typically have a small draw-down effect on the ground-water table which would not affect wells. Any effects of dewatering on the water table will be temporary.

33. **Comment:** The commenter stated concern about what kind of system would be acceptable if this project does not go through.
Comment letter 13.

Response: The purpose of the EA on the State level is to determine whether there is a potential for significant environmental effects, with respect to the project that is proposed. The evaluation of prudent and feasible alternatives to this project will only be required if the MPCA finds that there is such a potential. According to the County, ISTS systems are the only acceptable systems if this project does not go through. Holding tanks are a temporary, not a permanent solution. Holding tanks are prohibitively expensive in cases of permanent, year long occupancy. Outhouses are not an acceptable, long-term solution. For sites perched on bedrock where extending centralized sewer is a challenge, designing an acceptable ISTS is even more challenging.

34. **Comment:** The commenter stated concern about what criteria would be used to inspect the existing systems for compliance if this project does not go through.
Comment letter 13.

Response: Currently, the County requires a compliance inspection of an existing ISTS in shoreland areas for any building permit. According to the County, compliance inspections are not required at time of sale, but often lending institutions require one or potential buyers request them as a condition of purchase. Regulations in this regard are more likely to be tightened than loosened in the future. Many jurisdictions already require compliance inspections as a condition of sale.

35. **Comment:** The commenters asked what data the MPCA is using in its process to evaluate a project of this scope and with all its environmental concerns as far as an environmental improvement verses the negative impact of leaving as is, or providing another alternative at a lower cost.
Comment letters 13, 15.

Response: Considerable controversy exists over the accuracy of past studies that have been used to estimate the number of inadequate septic systems in the Jackfish Bay area. Because of this, it was decided to use, for the purpose of comparing the impacts of existing and proposed project conditions on the area's resources, a more conservative estimate of 20 percent as the percentage of inadequate systems. The following rationale was used in making the decision. Several residents of the Jackfish Bay area who had expressed concern about the project had estimated that approximately 20 percent of the systems is sub sections of the project area had inadequate septic

systems. In addition, the generally unfavorable geologic conditions of the area make this a reasonable minimum estimate of the inadequate septic systems. Using this estimate, the "existing condition" compared against the proposed project assumed approximately 49 systems (0.2 by 245 existing systems) were not functioning adequately.

36. **Comment:** The commenters stated concern about who will be responsible for restoring the ground cover, including people's yards, after construction is completed.
Comment letters 8, 14 .

Response: The construction contractor is under contractual obligation to restore ground cover, including people's yards, after construction is complete. This is a standard requirement of construction contracts.

37. **Comment:** The commenter proposed another alternative to the project as it is currently proposed.
Comment letter 17.

Response: The purpose of the EA on the state level is to determine whether there is a potential for significant environmental effects, with respect to the project that is proposed. The evaluation of prudent and feasible alternatives to this project will only be required if the MPCA finds that there is such a potential. According to the County, this alternative may have merit for the portion of Rainy Lake area east of Tilson Bay. This area will not be served by centralized sewer in the foreseeable future. Should sewer eventually not be approved for Jackfish Bay Sewer Collection System, this among other alternatives would be considered.

38. **Comment:** The commenters requested that an Environmental Impact Statement (EIS) be ordered for this proposed project.
Comment letters 1, 2, 3, 22, 26, 28.

Response: The Corps of Engineers state that, under regulations put forth in the National Environmental Policy Act, a Federal Environmental Impact Statement is required when it is determined that the proposed action would likely cause significant environmental impacts. The review of the project actions has not identified any significant impacts. Response letters on the EA/EAW also have not pointed out any significant impacts. Because no significant impacts were identified, a Federal Environmental Impact Statement will not be prepared and a Finding of No Significant Impact will be signed.

Regarding the state process, the decision on whether or not to order an EIS for this project would be made by the MPCA's Citizens' Board at its regular scheduled meeting on June 24, 2003.

39. **Comment:** The commenters stated concern that there are other more economical alternatives that could be used rather than the proposed system.
Comment letters 1, 2, 3, 4, 21, 22.

Response: The purpose of the EA on the state level is to determine whether there is a potential for significant environmental effects, with respect to the project that is proposed. The evaluation of prudent and feasible alternatives to this project will only be required if the MPCA finds that there is such a potential. The Corps reviewed several alternatives that were evaluated in the "Wastewater Facilities Plan" published April 1999. This plan established that centralized sewer was the most economical of the alternatives evaluated at that time. The County Board of Commissioners used the plan as the basis of filing an application to MPCA for grants to help fund a sewer project. The County has been pursuing the grants since then in the form of preparing plans and specifications of the sewer collection system, which are detailed engineering plans, and later, having to prepare an EA and an EAW to evaluate the impacts of the project on the environment.

40. **Comment:** The commenters stated concern about the impact the blasting may have on their home and others.
Comment letters 5, 29.

Response: The project specifications contain Section 02323 Rock Blasting. This section requires the contractor to conduct Precondition Building Surveys and Precondition Well Surveys to determine the existing condition of structures and wells. The section also requires the contractor to monitor specific blasting parameters such as Ground Vibration Control Limits, Air Blast Control Limits, and Flyrock Control. The limitations should prevent damage to structures and wells. The project specifications require that the contractor repair damage caused by their blasting operations, if damage does occur. The contractor is liable for damages that might be caused from the proposed blasting.

41. **Comment:** The commenter stated that no historic properties eligible for or listed on the National Register of historic places will be affected by the project.
Comment letter 7.

Response: The MPCA and Corps of Engineers concur.

42. **Comment:** The commenters stated concern about whether the pressure monitoring system automatic shutoff valves will be required as a part of the permit conditions.
Comment letters 10, 13.

Response: The County is proposing to use manual isolation valves and not automatic isolation valves. The type of isolation valves used would be a requirement of the MPCA State Disposal System Permit for sewer extensions. The design of the proposed Jackfish Bay Sewer Collection System line will be reviewed by MPCA staff to ensure it meets the Ten-State Standards for this type of system, and is also consistent in design to other sanitary sewer collection systems of similar applications.

43. **Comment:** The commenters stated concern about what will be done to power the heat tape for this system when there is an extended power outage.
Comment letters 10, 13.

Response: The local power companies were consulted to discuss the occurrence of extended power outages. The occurrence of extended power outages is rare and the length of outage is typically below the time to freeze estimates for the pressure sewer. If there were an extended power outage the pressure sewer lines could freeze. The operators of the system would have the option of transporting portable generators to each heat trace control panel to operate the heat trace. If the operators allowed the line to freeze, the pressure sewer system would not operate until the power supply is returned, and the pressure sewer lines are thawed, and flow could occur in the lines.

44. **Comment:** The commenter stated concern about who would be responsible for maintenance of the line and equipment on properties where the residents are there only 3 or 4 months out of the year.
Comment letter 13.

Response: The East Kooch will be responsible for maintenance of units that are only used three to four months of the year. East Kooch currently performs this function within the existing East Kooch.

45. **Comment:** The commenter stated that it will be necessary for the project proposer to apply for and receive a utility permit from the Minnesota Department of Transportation (MnDOT).
Comment letter 20.

Response: The project proposer will apply for all necessary permits.

46. **Comment:** The commenter stated concern about the location/appearance/access for any proposed pumping stations adjacent to the highway, if any. There will also be a large holding tank located near County State Aid Highway (CSAH) 9 and the 19th Hole Restaurant.
Comment letter 20.

Response: Pumping stations are not located adjacent to State Highways. All pumping stations are located adjacent to County Roads. The detention storage facility is located near CSAH 9 and the 19th Hole Restaurant. The location of the detention storage facility is the west side of CSAH 20, approximately 350 feet north of the intersection of CSAH 20 and State Highway 11.

47. **Comment:** The commenter points out that the final pipeline location will be approved by the MnDOT Maintenance Engineer during the permit process.
Comment letter 20.

Response: The County notes and concurs with this statement.

48. **Comment:** The commenter stated concern whether the sewer crossings under TH 11 will be open cut, jacked, or directional drilled and that pressurized sewer lines must be installed in a casing pipe where they cross the highway.
Comment letter 20.

Response: The pressure sewer lines under State Highway 11 will be directionally drilled. Currently, it is proposed that pressure sewer lines above three inches in diameter will installed in a casing pipe, and pressure sewer lines below three inches in diameter will not be installed in a casing pipe. Ed Vest, at MnDOT, will be contacted for approval prior to the start of construction.

49. **Comment:** The commenter stated concern that all disturbed areas and structures, including drainage structures, within the clear zone of the highway right-of-way, will have to be restored to current standards.
Comment letter 20.

Response: The disturbed area will have to be restored to current standards. This is a requirement that will have to be fulfilled by the contractor and will be included as part of the bid.

50. **Comment:** The commenter stated that any material below five-feet can be replaced with a suitable construction material that is granular in nature, as approved by MnDOT's field representative. The backfill shall be compacted according to MnDOT Specified Density Method.
Comment letter 20.

Response: The County notes this recommendation and indicated that it shall be followed.

51. **Comment:** The commenter stated concern about the statement that property values would increase as a result of the proposed system.
Comment letter 21.

Response: According to the Corps of Engineers, the provision of centralized sewer is generally considered to be an improvement to individual properties in spite of potential constructed-related impacts. Given that it is an improvement, the availability of centralized sewer will have a positive impact on property value. Sales price may go up because the property is served by sewer. The availability of centralized sewer gives potential buyers assurance that wastewater will be properly and easily handled and thus removes a potential problem. Many buyers are willing to pay extra for this assurance. Potential buyers tend to dictate property value even if a property owner has no intention to sell.

The MPCA recognizes this is an important issue for those living in the area and being impacted by the proposed project. However, it is a local issue and is beyond the scope of the state EAW level review.

52. **Comment:** The commenter stated concern regarding the cost of the project and if it is economically feasible or not given the current state of the economy.
Comment letter 21.

Response: This issue is beyond the scope of the state EA. However, according to the County, the cost of the project to the homeowner is as yet unknown as the project has not gone out to bid. After bids are received, the cost of the project can be determined. Once the cost to the homeowner is known, the County Board of Commissioners will then decide if that cost is both affordable and economically feasible.

53. **Comment:** The commenter asked what data would be used to show the environmental improvement after the proposed project is installed?
Comment letter 22.

Response: The primary, known threat to Rainy Lake water quality is sewage effluent. The provision of centralized sewer to Jackfish Bay Sewer Collection System will remove a significant portion of this threat. Solving wastewater problems from Tilson Bay to Sha Sha and on the islands is the next threat which will need to be addressed. The reason there is no hard irrefutable data to support this claim is that establishing "baseline" water quality conditions on a lake as large as Rainy Lake is expensive, difficult and time-consuming. No state or federal agency has undertaken this task. It is too large a task to be done entirely at the local level.

54. **Comment:** The commenter stated concern regarding what the environmental impacts of the effluent from properly working personal septic systems verses the environmental impacts of the effluent coming from the treatment plant at the East Kooch going directly into Rainy Lake.
Comment letter 22.

Response: There have been no bypasses of the East Kooch, as East Kooch wastewater is directed to the North Kooch Treatment Plant. Pre-treated effluent from North Kooch has been bypassed on a few occasions in the past five years. Bypassed wastewater is directed into Rainy River and not Rainy Lake. Bypass events have occurred during high concentrations of rainfall. There were four bypass events in 1999, one in 1998, zero in 2000, two in 2001 and two 2002.

55. **Comment:** The commenter stated opposition to the proposed project.
Comment letter 23.

Response: Comment noted.

56. **Comment:** The commenters stated concern regarding Item 7b of the EA and that the Minnesota Department of Natural Resource's Heritage database only identified one bittern sighting in the area of the proposed project.
Comment letters 25, 28.

Response: The statement in the EA is only providing data supplied by the DNR that is listed in their Natural Heritage Database. The statement was not intended to imply that only one bittern was present in the area, but rather that a bittern had been noted and that this is an indication that others would be present.

The DNR Natural Heritage Database is not definitive, but merely indicative of the presence of species. The fact that there may be many bittern sightings only adds to the DNR Natural Heritage Database findings. Construction of the sewer collection system will not have long-term adverse impacts to bittern or other wildlife habitat.